

Notice of Allowability

Application No.

10/629,591

Examiner

Tom V. Sheng

Applicant(s)

FUJITA, SHIN

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to reply filed on 2/28/2006.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 2/28/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Allowable Subject Matter

1. Claims 1-14 are allowed.
2. The following is an examiner's statement of reasons for allowance:

The claimed invention is directed to a data line driving circuit that includes a first logic operation unit in which respective first logic operation unit circuits are in cascade connection with each other. The driving circuit also includes an output signal control unit having respective operational units, in which a second logic operation controls an enabling period of a negative sampling signal based on an output signal from a second logic operation in a subsequent stage operational unit circuit.

Independent claim 1 identifies the uniquely distinct features "a first logic operation unit which, based on an output signal from a unit circuit and an output signal from a subsequent-stage unit circuit, generates an output signal that is enabled in a period while the output signals from the two unit circuits are enabled at the same time" and "a second logic operation unit which generates the positive logic output signal and the negative logic output signal based on the output signal from the first logic operation unit, and controls an enabling period of at least one of the positive logic output signal and the negative logic output signal based on the output signal from a first logic operation unit in a subsequent-stage output control unit."

Mamezuka (JP 11-338440) teaches a LCD data line-driving circuit. The data line driving circuit has a series of shift registers connected in cascade. The output signals from two adjacent shift registers are inputted to a NAND gate to enable/disable two respective AND gates for enabling/disabling corresponding data lines. However,

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Mamezuka's use of one set of NAND gates for data output control does not correspond to nor suggest claimed first logic operation unit and second logic operation unit.

Maekawa (JP 05-216441) teaches a LCD data line-driving circuit (called a horizontal scanning circuit by the inventor). The driving circuit is equipped with a shift register (S/R) for successively generating a horizontal switch-driving pulse signal. Further, a fixed-pattern removing circuit (NOR) is connected, thus an advance pulse generated previously from the shift register is received as a control signal and the output timing of a succeeding pulse having the rise of the same phase as the fall of the preceding pulse is controlled. However, Maekawa's use of shift register (S/R) and corresponding fixed-pattern removing circuit (NOR) do not correspond to nor suggest claimed first logic operation unit and second logic operation unit.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom V. Sheng whose telephone number is (571) 272-7684. The examiner can normally be reached on 9:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Sheng
May 8, 2006

AMR A. AWAD
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read "Amr A. Awad", written over a horizontal line.